

FIG.2

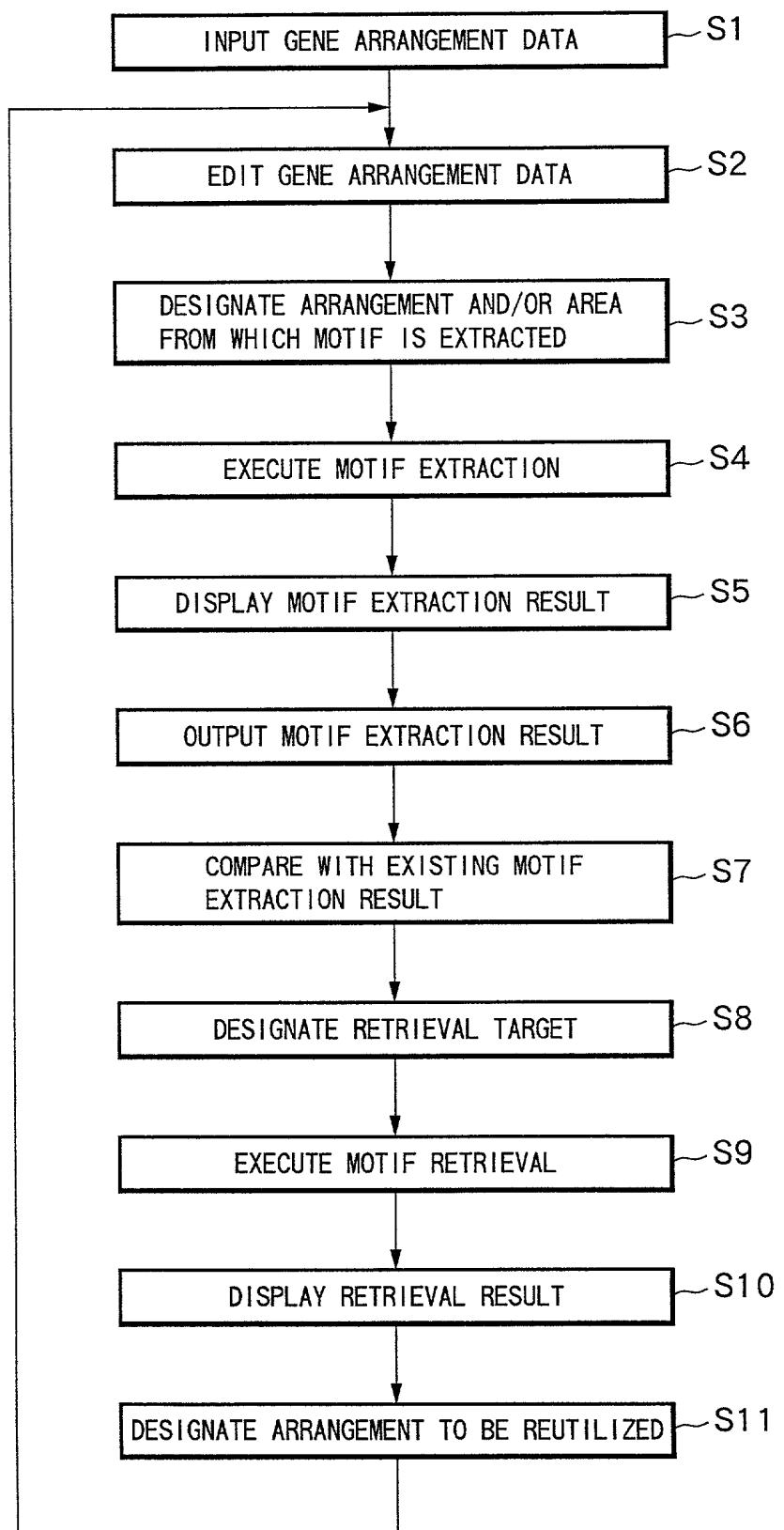


FIG.3

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INPUT GENE ARRANGEMENT DATA

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FILE INPUT

AUTOMATIC ALIGNMENT

MOTIF EXTRACTION

DATA EDITION

SETTING

NO CONVERSION

FIG.4

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INPUT GENE ARRANGEMENT DATA						
	10	20	30	40	50	60
XLEN2MAB-1	.....+	.....+	.....+	.....+	.....+	.....+
BFU82487-1	.....+MEENEQNNREVEPQDE-SG	.....+MEENEQNNREVEPQDE-SG	.....+MEENEQNNREVEPQDE-SG	.....+MEENEQNNREVEPQDE-SG	.....+MEENEQNNREVEPQDE-SG	.....+MEENEQNNREVEPQDE-SG
BRENG1-1	.....+MANSQADENGMPASPPPPHSPVQPEDSFS	.....+MANSQADENGMPASPPPPHSPVQPEDSFS	.....+MANSQADENGMPASPPPPHSPVQPEDSFS	.....+MANSQADENGMPASPPPPHSPVQPEDSFS	.....+MANSQADENGMPASPPPPHSPVQPEDSFS	.....+MANSQADENGMPASPPPPHSPVQPEDSFS
BRENG2-1	.....+MDENEQSARDVE--QR--GA--D	.....+MDENEQSARDVE--QR--GA--D	.....+MDENEQSARDVE--QR--GA--D	.....+MDENEQSARDVE--QR--GA--D	.....+MDENEQSARDVE--QR--GA--D	.....+MDENEQSARDVE--QR--GA--D
BRENG2G-1	.....+MDENEQSARDVE--QR--GA--D	.....+MDENEQSARDVE--QR--GA--D	.....+MDENEQSARDVE--QR--GA--D	.....+MDENEQSARDVE--QR--GA--D	.....+MDENEQSARDVE--QR--GA--D	.....+MDENEQSARDVE--QR--GA--D
BRENG3-1	.....+MEENDHSNRDVE--RQ--DS--D	.....+MEENDHSNRDVE--RQ--DS--D	.....+MEENDHSNRDVE--RQ--DS--D	.....+MEENDHSNRDVE--RQ--DS--D	.....+MEENDHSNRDVE--RQ--DS--D	.....+MEENDHSNRDVE--RQ--DS--D
MUSEN2AB-1	.....+MEEKDSKPSE--AAEAQRQPEPSS666SS666SPSSDSDTGRRAALMLPEVLAQPGNHQHPPR	.....+MEEKDSKPSE--AAEAQRQPEPSS666SS666SPSSDSDTGRRAALMLPEVLAQPGNHQHPPR	.....+MEEKDSKPSE--AAEAQRQPEPSS666SS666SPSSDSDTGRRAALMLPEVLAQPGNHQHPPR	.....+MEEKDSKPSE--AAEAQRQPEPSS666SS666SPSSDSDTGRRAALMLPEVLAQPGNHQHPPR	.....+MEEKDSKPSE--AAEAQRQPEPSS666SS666SPSSDSDTGRRAALMLPEVLAQPGNHQHPPR	.....+MEEKDSKPSE--AAEAQRQPEPSS666SS666SPSSDSDTGRRAALMLPEVLAQPGNHQHPPR
	.....+NHOPHHRITNFFIDNILRPEFGRRK	.....+NHOPHHRITNFFIDNILRPEFGRRK	.....+NHOPHHRITNFFIDNILRPEFGRRK	.....+NHOPHHRITNFFIDNILRPEFGRRK	.....+NHOPHHRITNFFIDNILRPEFGRRK	.....+NHOPHHRITNFFIDNILRPEFGRRK
	.....+PDGP--RTTNFSANIILRPEFGARK	.....+PDGP--RTTNFSANIILRPEFGARK	.....+PDGP--RTTNFSANIILRPEFGARK	.....+PDGP--RTTNFSANIILRPEFGARK	.....+PDGP--RTTNFSANIILRPEFGARK	.....+PDGP--RTTNFSANIILRPEFGARK
	.....+PAHNTDFIDNILRPDFG	.....+PAHNTDFIDNILRPDFG	.....+PAHNTDFIDNILRPDFG	.....+PAHNTDFIDNILRPDFG	.....+PAHNTDFIDNILRPDFG	.....+PAHNTDFIDNILRPDFG
	.....+NLQLPHRITNFFIDNILRPDFGRKKEAN	.....+NLQLPHRITNFFIDNILRPDFGRKKEAN	.....+NLQLPHRITNFFIDNILRPDFGRKKEAN	.....+NLQLPHRITNFFIDNILRPDFGRKKEAN	.....+NLQLPHRITNFFIDNILRPDFGRKKEAN	.....+NLQLPHRITNFFIDNILRPDFGRKKEAN
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	.....+NV-LPHRITNFFIDNILRPDFGRKKEGS	.....+NV-LPHRITNFFIDNILRPDFGRKKEGS	.....+NV-LPHRITNFFIDNILRPDFGRKKEGS	.....+NV-LPHRITNFFIDNILRPDFGRKKEGS	.....+NV-LPHRITNFFIDNILRPDFGRKKEGS	.....+NV-LPHRITNFFIDNILRPDFGRKKEGS
	.....+ITNFFIDNILRPPEFGRKDAGTCAGAGGARGGEGGAGATTEGGGGAGGAQDCNPTGS	.....+ITNFFIDNILRPPEFGRKDAGTCAGAGGARGGEGGAGATTEGGGGAGGAQDCNPTGS	.....+ITNFFIDNILRPPEFGRKDAGTCAGAGGARGGEGGAGATTEGGGGAGGAQDCNPTGS	.....+ITNFFIDNILRPPEFGRKDAGTCAGAGGARGGEGGAGATTEGGGGAGGAQDCNPTGS	.....+ITNFFIDNILRPPEFGRKDAGTCAGAGGARGGEGGAGATTEGGGGAGGAQDCNPTGS	.....+ITNFFIDNILRPPEFGRKDAGTCAGAGGARGGEGGAGATTEGGGGAGGAQDCNPTGS
	.....+FTGRDT--GALSQAESGHHRV	.....+FTGRDT--GALSQAESGHHRV	.....+FTGRDT--GALSQAESGHHRV	.....+FTGRDT--GALSQAESGHHRV	.....+FTGRDT--GALSQAESGHHRV	.....+FTGRDT--GALSQAESGHHRV
	.....+RDSKSCDSS--PVSSPG--KPAPG--	.....+RDSKSCDSS--PVSSPG--KPAPG--	.....+RDSKSCDSS--PVSSPG--KPAPG--	.....+RDSKSCDSS--PVSSPG--KPAPG--	.....+RDSKSCDSS--PVSSPG--KPAPG--	.....+RDSKSCDSS--PVSSPG--KPAPG--
	.....+CKR-E--RERVTRD--SG6RPTALPDSSRSRGVSSSSAS	.....+CKR-E--RERVTRD--SG6RPTALPDSSRSRGVSSSSAS	.....+CKR-E--RERVTRD--SG6RPTALPDSSRSRGVSSSSAS	.....+CKR-E--RERVTRD--SG6RPTALPDSSRSRGVSSSSAS	.....+CKR-E--RERVTRD--SG6RPTALPDSSRSRGVSSSSAS	.....+CKR-E--RERVTRD--SG6RPTALPDSSRSRGVSSSSAS
	.....+NO CONVERSION					
	.....+FILE INPUT	.....+AUTOMATIC ALIGNMENT	.....+MOTIF EXTRACTION	.....+DATA EDITION	.....+SETTING	.....+SETTING

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FIG. 6

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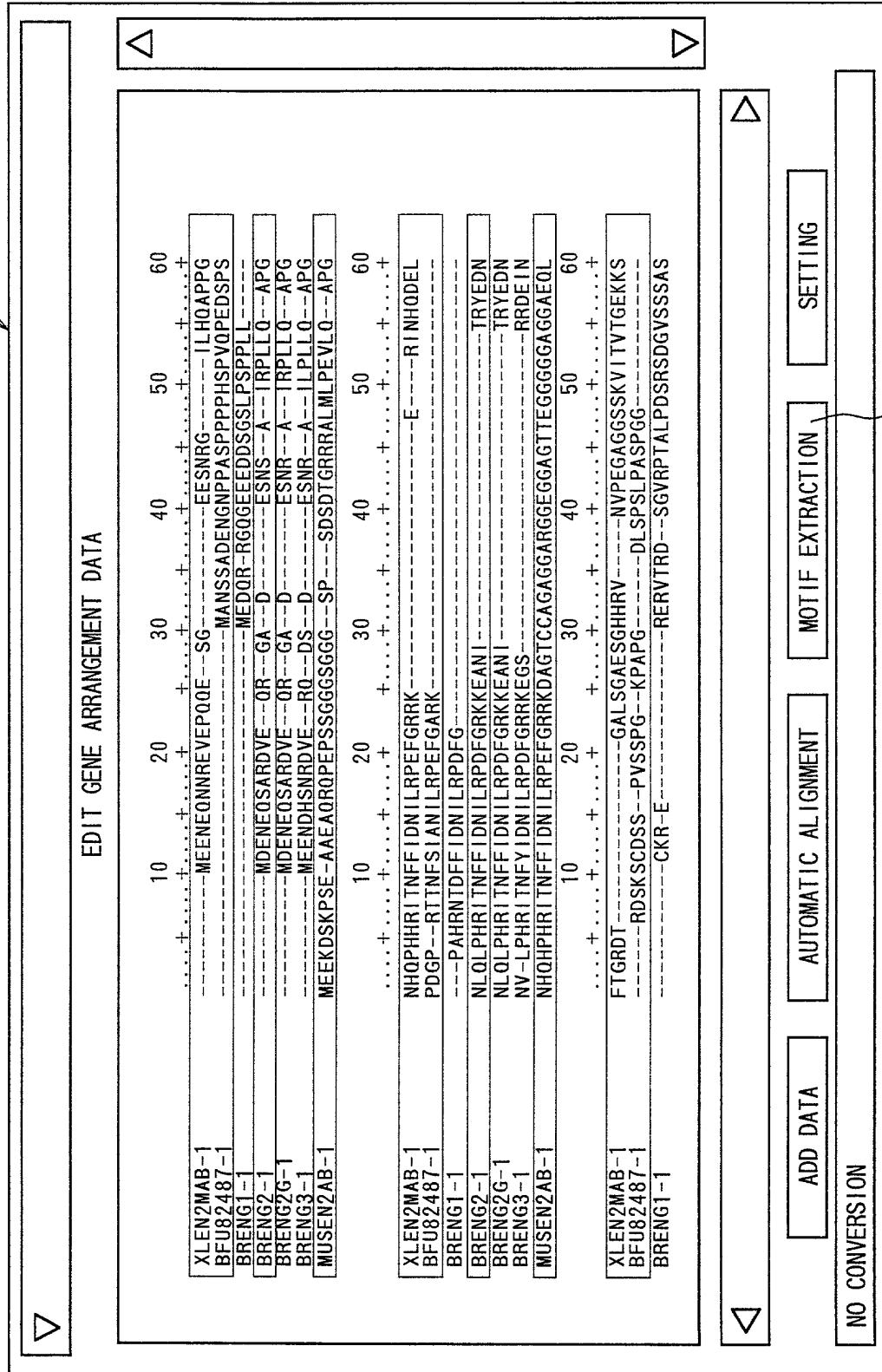
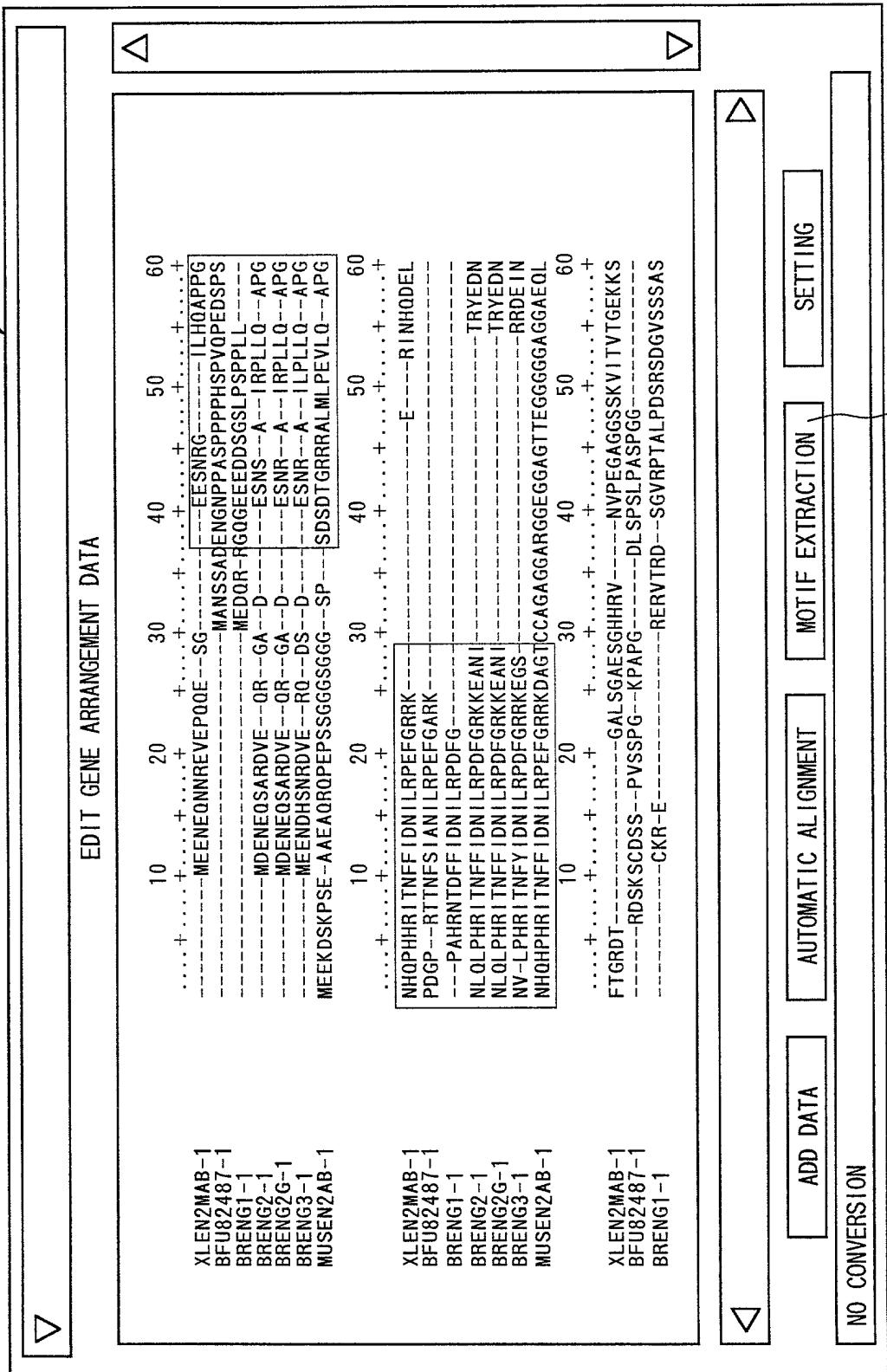


FIG. 7 / 50



70 FIG. 8

DISPLAY MOTIF EXTRACTION RESULT		LIST OF EXTRACTED MOTIFS	
PROBE:	XLEN2MAB-1	[homologue: 7 length: 358]	67: R-T[DNI]F-1-NILRP-FCG :82
Motif extract:	BF182487-1	window: 1 threshold: 0.90	226: [M][L]WPAWYCTRYSDRPS...GPR-RK-[KR]-K :257
start region size[0]:	11	random level[.]: 101	265: [DE]KRPRTAFT[AS] [DE]KRPRTAFT[AS] :344
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	BRENG1-1		
	BRENG2-1		
	BRENG2G-1		
	BRENG3-1		
	MUSEN2AB-1		
	XLEN214-1		
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## ALIGNMENT DATA INPUT

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67: R-T [DN] F-1-NILRP-FG :82  
68: [M] [L] WPAWYCTRYSDPSS----GPR-RK-[KR]-K :257  
69: [DE]KPRTA[AS] [DE]Q1Q8L-K-EFQ--R[Y][L]TEORRO-LA-EL-[NESQ[K]WFOWKRAK [KK][AS]-G-[KR]N-LA-[QH]WAGGLYNH[AS]T :344  
70: 665:

642

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## LIST OF EXTRACTED MOTIES

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FIG.10

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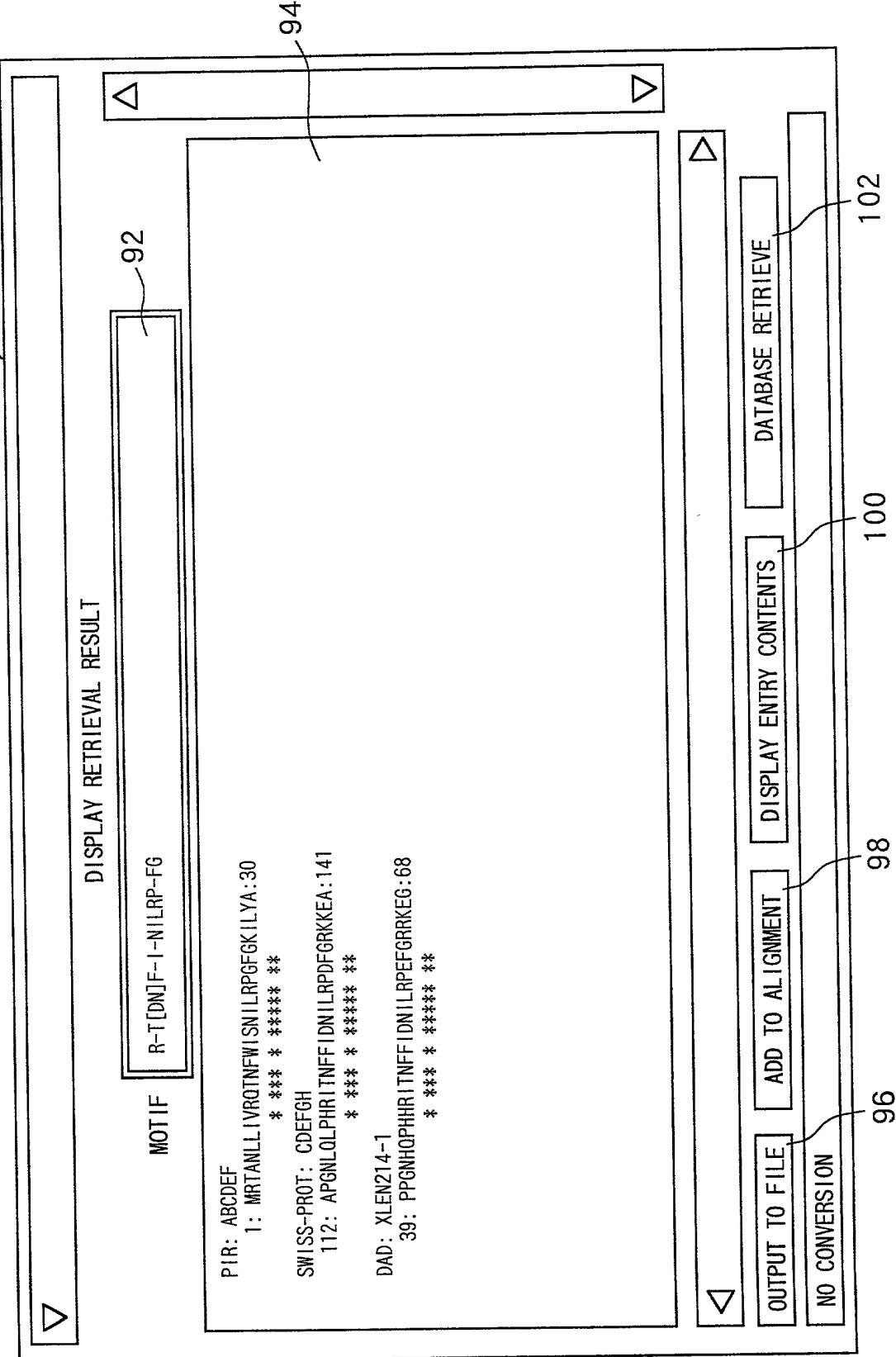
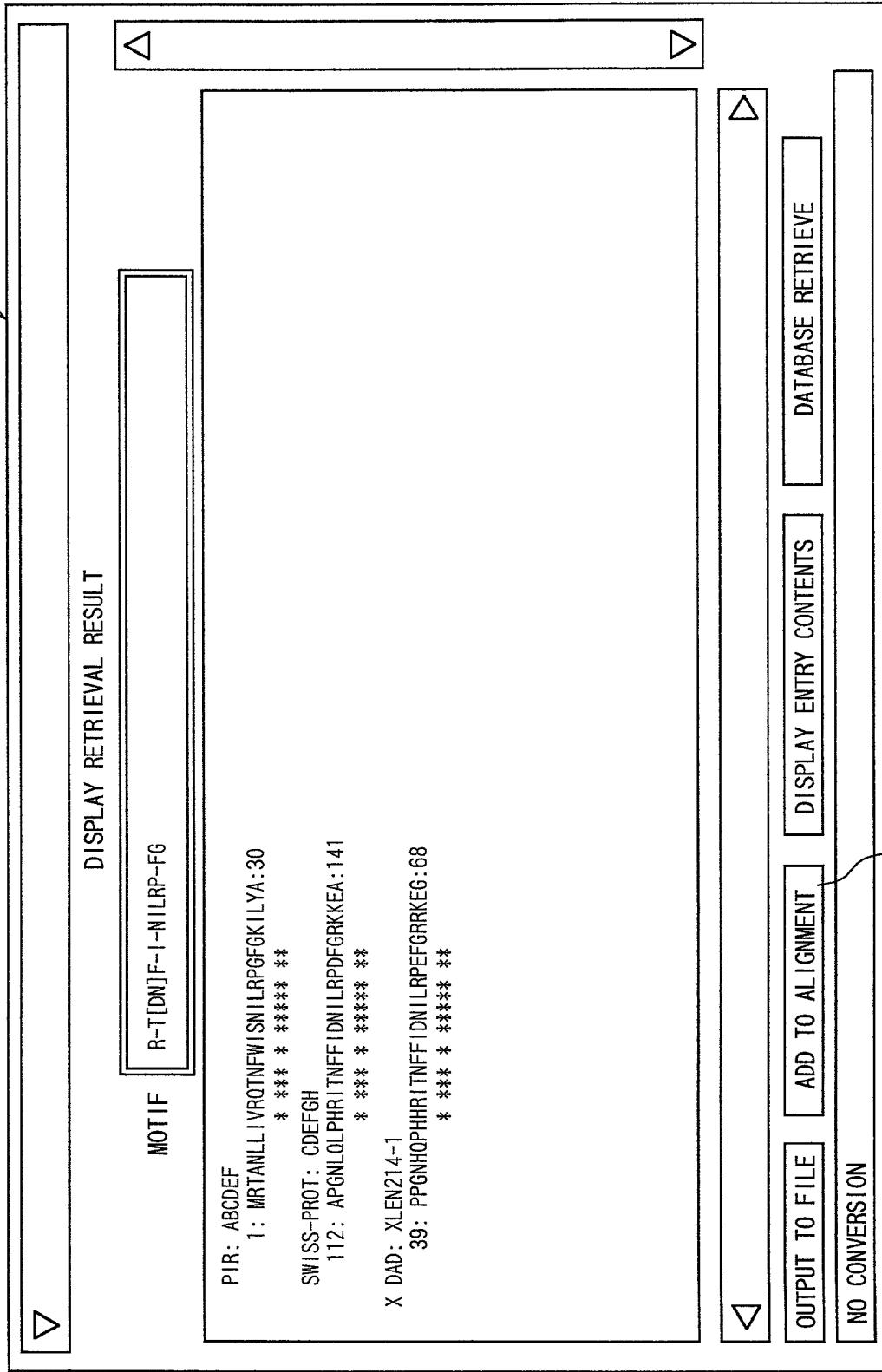


FIG.11



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